CEREAL RUST BULLETIN

Report No. 4
May 22, 2014

Issued by:

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Or, send an email to: Mark.Hughes@ars.usda.gov

Reports from this list as well as all Cereal Rust Bulletins are maintained on the CDL website (*http://www.ars.usda.gov/mwa/cdl*)

- Race QFCSC was identified from stem rust collections made in Weslaco, Texas.
- Wheat leaf rust development is increasing in areas of the Southeast and mid-Atlantic.
- Wheat stripe rust hot spots were found in nurseries in Oregon.

For original, detailed reports from our cooperators and CDL staff, please visit the Cereal Rust Situation (CRS) reports page on the CDL website or click the CRS links found throughout the bulletin. The cereal rust observation maps (Maps) can also be found on the CDL website.

Ongoing drought conditions continue to be an issue in many areas of the central and southern plains (see Drought Monitor). Unfavorable weather continued to delay small grain planting in the northern plains.

The winter wheat crop was 57% heading by May 18, just slightly behind the 5-year average. Some winter wheat fields in severe drought areas of Oklahoma and Texas were baled for hay or otherwise abandoned. By May 18, forty nine percent of the spring wheat crop was planted, 19 points behind the 5-year average.

By May 4, seventy eight percent of the spring oat crop was sown, 10 points behind the 5-year average. All states were behind average planting progress except for Ohio and Texas. The spring barley crop was 68% planted, just slightly behind of the 5-year average.

Wheat stem rust.

There have been no new wheat stem rust reports since the last bulletin. Previously, wheat stem rust was reported in plots at Weslaco and Castroville, in the Rio Grande Valley, Texas and South Texas, respectively. Race QFCSC, the most commonly identified wheat stem rust race in recent years, was identified from collections made at Weslaco.

Wheat leaf rust.

Texas – There have been no new reports from Texas since the last bulletin. Much-needed rain fell across the eastern half of the state last week, but dry, windy conditions dominated much of west Texas and the Panhandle. Harvest has begun in South Texas where the wheat crop was generally in good condition. Previously, relatively high wheat leaf rust disease severities were reported in Zavala and Bastrop counties in South Texas.

Oklahoma – There have been no new reports of wheat leaf rust in the state. Previously, low levels of leaf rust were found in one irrigated no-till wheat field in central Oklahoma (Caddo County) in early May, otherwise, there have been no reports of leaf rust in the state. Drought conditions in the state coupled with high temperatures and wind have not been conducive for wheat or rust development.

Kansas – Wheat leaf rust had not been reported in the state by May 21. Persistent drought and high temperatures have not been conducive for wheat or rust development.

Nebraska – Wheat leaf rust had not yet been reported in the state on May 21. Wheat in the state is mostly at Feekes 8-10 growth stage. There is very little, if any, inoculum to the south in Kansas and Oklahoma.

Louisiana – Very little leaf rust has been reported in the state this season.

Arkansas – Traces of wheat leaf rust were observed on the cultivar Havoc at Marianna and Newport in eastern Arkansas the fourth week of May. Hot, dry and windy conditions have not been conducive for rust development. Previously, the only other wheat leaf rust reported was of leaf rust on volunteer wheat at the experiment station at Marianna in late March.

Mississippi – There have been no new reports from the state since the last bulletin. Previously, trace levels of wheat leaf rust were reported in Greenwood in the eastern Delta region in late April.

Georgia – Wheat leaf rust had developed to severe levels on many lines in plots at Plains in southwestern Georgia by the third week in May. Plots of Shirley (postulated to have *Lr26* and *Lr18*) had higher levels of leaf rust than seen in previous years.

South Carolina – Leaf rust was rapidly developing in areas of northern South Carolina by the second week of May.

North Carolina – In eastern North Carolina, leaf rust continued to increase in plots at Kinston while at Ayden leaf rust was just beginning to appear the third week of May. Recent conditions have been conducive for leaf rust development. Plots of Shirley in North Carolina also had higher levels of leaf rust severity than in past years.

Virginia – A headrow in a nursery at Warsaw in eastern Virginia in the third week of May had low incidence and low severity of leaf rust.

Wheat leaf rust map. *Please visit:* http://www.ars.usda.gov/Main/docs.htm?docid=9757.

Wheat cultivar *Lr* gene postulation database. *Please visit*: Leaf rust resistance gene postulation in current U.S. wheat cultivars.

Wheat stripe rust.

Louisiana – There have been no new reports from the state since the last bulletin. Previously, traces of stripe rust were reported around the state by early April (see CRB #2).

Mississippi – There have been no new reports from the state since the last bulletin. Previously, a few stripe rust infected leaves were found on volunteer plants under a rainout shelter in Stoneville in the Delta region. As of May 3, stripe rust had not been confirmed in commercial fields or nurseries anywhere in the state.

Arkansas – There have been no new reports of stripe rust in the state since the last bulletin. Hot, dry and windy conditions have not been conducive for rust development. Previously, a small wheat stripe rust hot spot was found in a plot of a known susceptible cultivar at Marianna in eastern Arkansas on April 30. This was the first report of stripe rust in the state this season.

Oregon – Stripe rust disease pressure was low in the western part of the state the third week of May. However, hot spots were observed in several fields. In eastern Oregon, stripe rust hot spots were observed in the Hermiston and Pendelton-Ruggs nurseries while trace amounts were found in the Milton-Freewater

nursery. Stripe rust was also reported in a field in Sherman County. Previously, stripe rust was reported in a commercial field near Adams City in north central Oregon on April 24.

Washington – There have been no new reports from the state since the last bulletin. Generally, stripe rust disease pressure was low in eastern Washington in late April.

Please send wheat and barley stripe rust collections as soon as possible after collection to:

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Pullman, WA 99164-6430
email: xianming@wsu.edu

***Note**:* Stripe rust collections are vulnerable to heat and do not survive long at warm temperatures; therefore, if shipment of collections for race identification is delayed their viability will be greatly reduced. An overnight courier service is preferred for sending stripe rust collections.

Wheat stripe rust map. *Please visit:* http://www.ars.usda.gov/Main/docs.htm?docid=9757.

Oat stem rust. Oat stem rust was reported in Louisiana, but came in late and caused little damage. Previously, low levels of oat stem rust were found in a field in central Texas and nurseries in southeastern Louisiana and south central Texas.

Oat crown rust.

South Texas – There have been no new reports from Texas since the last bulletin when low levels of oat crown rust were reported in a Bastrop County field in early May. Previously, oat crown rust was spreading uniformly throughout the nursery at Wharton and increasing on Nora at Beeville, but had not yet been found at College Station.

Florida – There have been no new reports from the state since the last bulletin. Previously, oat crown rust was found on the cultivar Horizon 201 in Trenton and Hague in north central Florida.

Louisiana – Oat crown rust appeared too late in the state to cause much damage, but did reach significant levels in nurseries.

Oat crown rust map. *Please visit:* http://www.ars.usda.gov/Main/docs.htm?docid=9757.

Barley stem rust. Not yet reported in the U.S. this year.

Barley leaf rust. Moderate amounts of barley leaf rust were observed in susceptible border rows in nurseries at Blacksburg and Warsaw in western and eastern Virginia, respectively, in early May. Previously, low levels of barley leaf rust were found on the lower leaves of the winter barley Alba in plots at Mount Vernon in northwestern Washington on March 25.

Barley leaf rust map. *Please visit:* http://www.ars.usda.gov/Main/docs.htm?docid=9757.

Rust on barberry. Light amounts of early aecial infection were observed on common barberry (*Berberis vulgaris*) in southeastern Minnesota on May 21.